



Scaffolding Procedure

**SOUTHERN PORTS AUTHORITY
PORT OF ESPERANCE**

SCAFFOLDING PROCEDURE

Document Users : **All Port Users**
Responsible Person : **Safety & Security Manager**
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1	A Niesler	Maintenance Tech. Services HSRs	D Graham	28.03.16	New Document














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DETAILS OF CURRENT REVISION CHANGES

Old Section	New Section	Details of Change
All sections	All sections	New Document

Important Summary Points

-  All scaffolds must comply with Australian Standard AS 1576.
-  Persons building, altering and dismantling scaffolding shall have successfully completed the applicable national units of competency in scaffolding and hold a current Licence to Perform High Risk Work.
-  A Working at Heights permit is required to be completed and approved prior to a scaffold erection, alteration or dismantling: if working outside of edge protection or; where a person may be exposed to a potential fall.
-  Appropriate protection such as hard barricades / hoarding and signage must be in place when erecting a scaffold on roadways, vehicles access ways, personnel thorough fares and pedestrian walkways.
-  Scaffolds should be erected, where practicable, at one metre lifts at a time, ensuring every two (2) metre level is fully decked and guard railed.
-  Scaffold equipment (butt tubes, clips, tools, etc.) must be hoisted in rigging bags, cages or similar holder, to prevent them from falling.
-  All scaffolds must be inspected and registered in a Scaffold Register before they can be used.
-  Dismantling must occur as soon as possible after the scaffold has served its purpose.
-  Scaffold tubes shall be checked for foreign objects that may have been inserted into them before passing down such as screwdrivers, bolts, pinch bars, threaded rod.
-  Under no circumstances must any item be thrown down or dropped from the scaffold.
-  Scaffold should be stored in a safe manner, away from weather conditions and be stored in places with good ventilation.



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1. PURPOSE

The purpose of this procedure is to provide information and guidance as to the minimum standards for work, either over land or water involving the erection and installation, modifying and dismantling of scaffold and that it is conducted in a safe, legal and competent manner.

2. SCOPE

This procedure applies to all PoE personnel, contractors and visitors while working at the SPA PoE.

3. STANDARD REQUIREMENTS

3.1 Planning and General Requirements

All scaffolds must comply with Australian Standard AS 1576.

Persons building, altering and dismantling scaffolding shall have successfully completed the applicable national units of competency in scaffolding and hold a current Licence to Perform High Risk Work.

Under no circumstances are untrained, unlicensed or non-approved personnel to build, alter or dismantle scaffold.

Personnel shall be assessed as fit for work to erect, modify and dismantle scaffold and that they shall inform their supervisor of any condition or consumption of medication or other that may affect that person's ability to work safely.

A risk assessment (RA) for assessing hazards shall be conducted to identifying the required controls for the task prior to commencing. This is to be a collective process involving all team members with the following items taken into consideration, but not limited to:

- Structural design or inadequate bracing;
- Faulty materials;
- Manual handling injuries whilst handling scaffold materials;
- Scaffold materials being dropped during handling;
- Falls by scaffolders when working at height;
- Being struck by a falling object;
- Impact from passing vehicles or plant;



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- Failure of the scaffold structure when incomplete;
- Strong winds, storms, close proximity lightning; and
- Is scaffolding the appropriate control for the task or should a permanent platform or mobile elevating work platform (MEWP) be used instead?

Overhead power lines and possible utility services such as water, air, fibre optic cables, communications cables located in close proximity to the proposed scaffolding work shall be considered and specific control measures implemented to prevent possible contact. This may require isolations to be undertaken prior to the task commencing in accordance with the SPA PoE Isolation and Tagging Procedure (D16/695).

A dedicated emergency plan along with the required working at heights rescue equipment for the specific works is to be reviewed, agreed and communicated prior to commencing the scaffolding task.

Traffic awareness plan controls (TAP) such as but not limited to signage, spotters, barricading, lighting must be established where applicable prior to the scaffolding task commencing.

Additional working at height controls such as harnesses and working at height permits are not required while working from a **completed and approved** scaffold.

A working at heights permit is required to be completed and approved prior to a scaffold erection, alteration or dismantling: if working outside of edge protection or; where a person may be exposed to a potential fall.

A scaffolder competency is not required to dismantle prefabricated modular scaffolding or to erect/dismantle handrails made out of scaffolding materials. These tasks can be completed by a competent approved person on completion of a risk assessment (RA).

3.2 Scaffolding Requirements

3.2.1 Prior to Erecting

The selection of a safe location and the appropriate scaffold for a particular task shall be made after consultation with the Supervisor, taking into consideration:

- Complexity of the scaffold design;
- Strength and condition of the ground or other supporting structure;
- Number of persons required to safely carry out the task;
- Expected duration of the task;
- Materials and equipment to be used;
- Level or levels at which the task will be carried out;



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- Potential of objects impacting with significant force on the scaffold;
- The safest way to access and egress the scaffold;
- The safe work load (SWL) of the scaffold including people, tools and equipment and potential product build up;
- Adequate edge protection to eliminate the risk of persons, tools, objects falling from height;
- Proximity of public space or adjoining property or areas of influence or battery limits;
- Rescue systems required for promptly rescuing persons in the event of an emergency or accident;
- Proximity and operating radius of vehicles, cranes, MEWPs and moving plant; and
- Protection of the scaffold from vehicle and mobile plant traffic.

Where persons could be potentially working below and may be exposed to a risk of falling objects, overhead protection to catch, deflect or hold any such objects, or hard barricade the area and apply appropriate, legible warning signs.

The use of tool restraints may be required at times to protect other persons from potential falling objects.

3.2.2 Erecting a Scaffold

The scaffold, where practicable, should be constructed in a way that prevents the risk of a person falling at all times, thereby eliminating the need for the scaffolder to use a Fall Injury Prevention System (FIPS).

Where possible scaffolding platforms should be built at ground level then lifted into the required position.

Appropriate protection such as hard barricades / hoarding and signage must be in place when erecting a scaffold on roadways, vehicles access ways, public thorough fares, and pedestrian walkways.

A hard barricaded and sign-posted drop zone shall be used to ensure that accidental drops of scaffold equipment would fall into the designated drop zone.

The foundation of every scaffold must be capable of carrying the imposed load for the entire life of the scaffold. Base plates and sole boards must be used appropriately to spread the load.



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Casters, jackscrews or base plates shall be fitted, the scaffolds shall be level, plumb and secured to a solid structure wherever possible.

Ground excavations must be sound and base plates clear of any excavation or possible underground services.

Scaffolds must not block access or escape routes.

During the construction of a scaffold, a sign indicating the scaffold is under construction, and not to be used must be clearly displayed at all scaffold access points, with these locations hard barricaded off.

Safe and clear access shall be established at all entry points of a given scaffold including access points from level to level, and shall be maintained in this state at all times.

Scaffolds should be erected, where practicable, at one metre lifts at a time, ensuring every two (2) metre level is fully decked and guard railed.

No scaffolder shall work from a scaffold platform of less than three (3) scaffold boards which are to be appropriately supported.

No scaffolder shall work without a secure foothold and a secure handhold.

Any working platform two (2) metres or more in height must be fitted with guard rails, mid rails and toe boards this includes access towers.

Scaffolds must not be supported by pipe work unless risk assessed (RA) and must not be tied into existing handrails or guardrails.

Scaffold tubes must not protrude into access ways or in other areas that may impact and endanger personnel. Where this is not possible, the protruding scaffold components are to be padded securely using a high visible cloth or end caps fitted.

Joints should be wrapped or otherwise shielded in the vicinity of access ways to prevent injury to passers-by.

Scaffold platforms shall be fully planked or decked out with scaffold planks and kick boards securely lashed down with non-flammable material, the use of a temporary securing means i.e. plastic cable ties shall not be used at any time.

Scaffold equipment such as butt tubes, clips, tools must be hoisted in rigging bags, cages or similar holder, to prevent them from falling.

Equipment must only be passed by hand from one platform to the next platform at a time.

Self-closing gates must be provided where fixed edge protection is absent due to a ladder or stairway, manufactured designed drop down bars may be used



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only if a self-closing gate cannot be installed to give personnel safe entrance due to the size or location of the access opening.

Scaffolds must be protected from electrical circuits and equipment.

Where practicable, scaffold must be designed to have stair access and not ladder access.

Where fixed rung ladder access is provided, the angle of ladder's slope must be not less than 70 degrees and not be greater than 75 degrees to the horizontal.

The ladder must extend a minimum of 900mm above the egress platform or landing and be fitted with a wally bar.

Ladders must be placed so as to not impose an unacceptable side loading on the scaffold and must be secured to prevent them from slipping.

No ladder is to extend more than 6 metres.

Personnel should be able to step from the ladder onto the platform without the need to crawl or bend under a scafftube.

3.2.2.1 Mobile Scaffolds

The height of a mobile scaffold shall not exceed three times the least base dimension.

Mobile scaffolds shall not be erected or used over stairs, ramps or walkways.

All wheels on a mobile scaffold must be locked before any person uses it as a work platform.

Access to and from the scaffold platform must be by the internal ladders through a self-closing hatch with a hinged cover.

A mobile scaffold tower shall be used and moved only on surfaces sufficiently firm and level to avoid instability.

A mobile scaffold shall not be moved until all persons have climbed down and all loose materials are secured or removed.

3.2.2.2 Hung Scaffolds

The design of hung scaffolds and the adequacies of their supporting structures must be verified for compliance by a competent person, such as an engineer experienced in structural design and erected with appropriate FIPS where and as required.



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An independent scaffold may be hung at a fixed height from beams, grid-mesh flooring, structural-roofing members or other overhead structure. Open-ended hook-rods must not be used. Couplers with speed threads or multi-start threads should not be used to secure hung standards or to fix ledgers to hung standards.

The method of securing the standards to the supporting structure should prevent the scaffold from becoming dislodged. Scaffold tubes used as hung standards should have check couplers immediately above the suspension points and immediately below the lowest ledgers.

3.2.2.3 Suspended Scaffolds

Suspended scaffolds shall be designed by an approved competent Engineer and erected with appropriate FIPS where and as required.

Sufficient safe access and egress points shall be provided for persons using the suspended scaffold.

Adequate means shall be provided for the rescue of an operator in the event of an emergency.

3.3 Register and Inspection

The management of scaffolding is to be in accordance with a scaffold tagging system to ensure that it is constructed and used correctly and that an accurate record is kept of the status of all scaffolds used on site. The Scafftag system has been designed in two stages:

3.3.1 Stage One (1) – Erection

During construction of a scaffold, the Scafftag holder must be securely fastened to the access points of the scaffold. This will ensure that the Scafftag shows the words “DO NOT USE SCAFFOLD”.

3.3.2 Stage Two (2) – Completion

Once the scaffold has been erected, it must be inspected by the approved person. This inspection will be thorough to ensure the scaffold conforms to this procedure and statutory requirements.

A conforming scaffold shall have two (2) green insert cards completed with the following legible information:

- Location and reference number;
- Date erected and requested by;
- Built by (full name of person, no nicknames) and certification number;
- Signature;



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- e) Used for – light, medium or heavy use classification;
- f) One card will be inserted into the holder at the scaffold and the other placed in a scaffold register;
- g) Scaffolds are to be inspected every fourteen (14) days and after inclement weather periods, by the scaffolding Supervisor or the approved nominated person with the records of the inspections kept in a scaffold register; and
- h) During the inspection process, the inspecting person will remove the Scaffold tag and on the reverse side of the card will date and sign that the scaffold is safe to use. If the scaffold is unsafe, the green tag is removed displaying the holder “DO NOT USE SCAFFOLD” signs with the removed tag placed with the duplicate tag in the scaffold register, until the scaffold is repaired.

3.4 Working from Scaffolds

All scaffolds must be inspected and registered in a scaffold register before they can be used.

Under no circumstances shall any part of a scaffold be altered or modified without the permission of the scaffolding Supervisor or the Supervisor whose name and signature appears on the green insert card of the Scaffold tag.

Where persons are required to work or pass under the scaffold, scaffolds must be provided with a suitable screen between the toe-board and the guard rail, extending along the entire opening.

3.5 Dismantling Scaffold

Dismantling must occur as soon as possible after the scaffold has served its purpose.

Scaffold must be clear of all other material and other trades before the scaffolders commence dismantling.

Access to the area where the scaffold is being disassembled must be hard barricaded with legible warning signs posted.

Scaffold tubes shall be checked for foreign objects that may have been inserted into them before passing down such as screwdrivers, bolts, pinch bars, threaded rod.

Scaffolds must be disassembled progressively with the dismantled items being safely lowered to the ground.

Under no circumstances must any item be thrown down or dropped from the scaffold.



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Scaffold material should be passed and stacked on a loading cradle or stillage if there is a requirement to use a crane. This stillage must have a SWL and material must be suitably secured.

Loose scaffold material should not be left on scaffold.

Signs and barricades must always be erected to scaffolding if the scaffold is to be left at any time before it is completely dismantled.

Scaffold material must be stacked into a pallet or cage to keep the base of the scaffold tidy.

3.6 Storage of Scaffold

Scaffold should be stored in a safe manner, away from weather conditions and be stored in places with good ventilation.

Where practicable scaffolding should be stored in the following manner;

- Scaffold tubes and poles to be stored in stillage's;
- Scaffold tubes and pipes to be stored in similar lengths and diameters;
- Joints, clips, jack screws, casters etc. where practicable, are to be stored under cover to prevent seizing of parts due to corrosion; and
- Scaffold components should be stored at a safe distance apart that allows manoeuvring of stillage's with a forklift.

3.7 Damaged Scaffold

When persons are conducting scaffolding works and they observe damaged or unserviceable scaffold equipment, the equipment is to be removed from service immediately. The damage equipment is to be tagged as 'out of service' and segregated from the serviceable equipment.

The damaged unserviceable equipment is to be removed from the work site at the conclusion of the shift.

Any part of a scaffold that is damaged, weakened or requires modifications, must be replaced, repaired or modified immediately and reported to the Supervisor.

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4. DEFINITIONS AND ACRONYMS

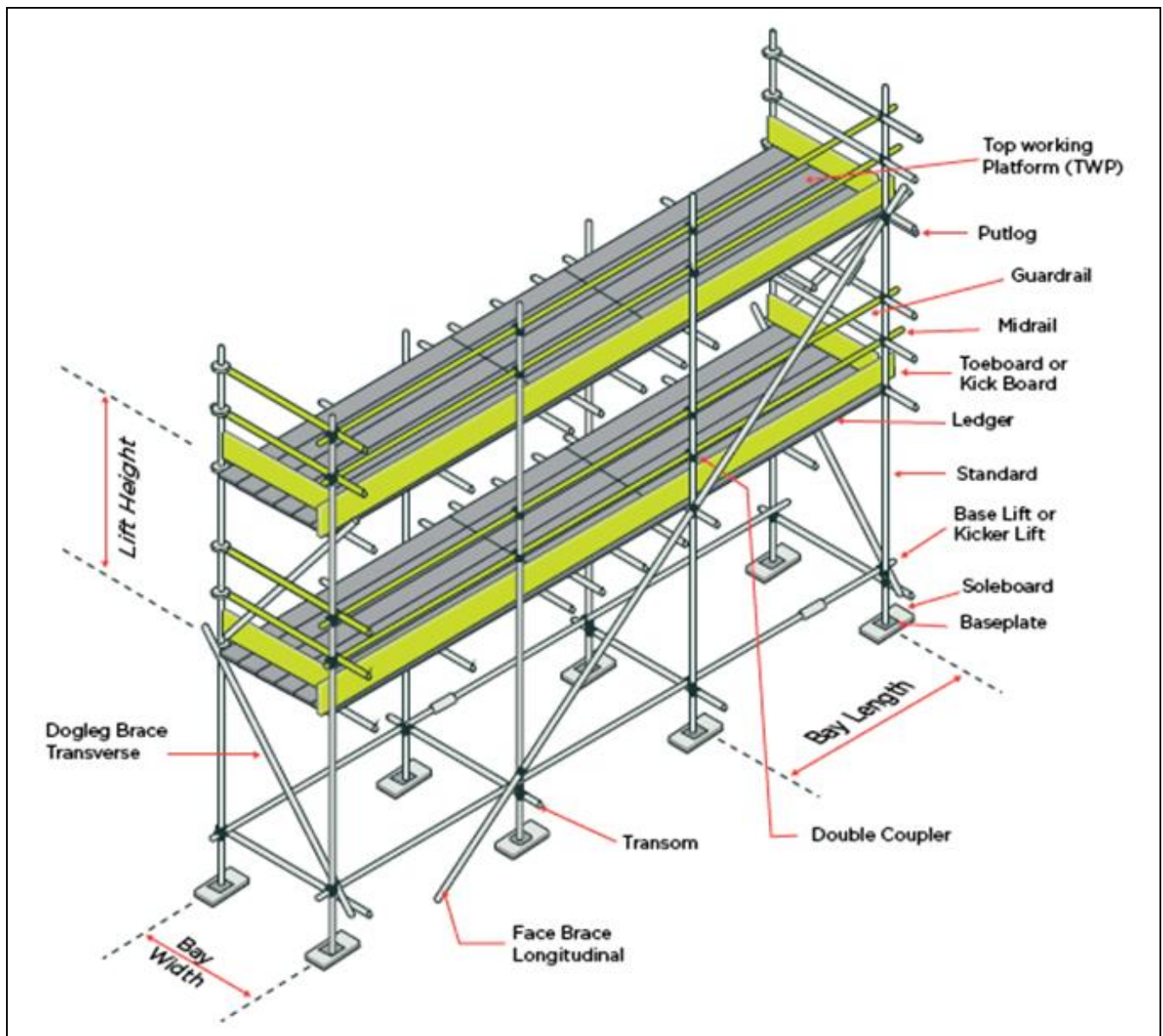
Definition	Meaning
Shall	Mandatory
Should	Recommended
Employees	Any person working for SPA PoE under a contract of employment, apprenticeship or other agreement thus including contractors, sub-contractors and vendors.
Safe System of Work (SSOW)	Comprises of four elements (Planning, Equipment, Change & People) which are interrelated / integrated and that they are dependent upon each other to ensure that a safe system is maintained at the workplace.
Risk Assessment (RA)	May include but not limited to a Risk Assessment Workshop (RAW), Job Hazard Analysis (JHA), Take 5 or a combination of, for the purposes of identifying hazards and the required controls to minimise risk to safety, health, environment and community.
Work at Height	Defined as having the potential to fall from one level to another, resulting in injury.
Fall Injury Prevention System (FIPS)	Are used as a safe system of work to protect personnel from the hazards associated with falling from height.
Scaffold	Temporary structure, stage or platform specifically erected to support access or working platforms, persons, plant or other material. <ul style="list-style-type: none"> • Light duty: 225 kg, • Medium duty: 450 kg, • Heavy duty: 675 kg.
Scaffitag	A tag attached at a highly visible, prominent location on the scaffold access point indicating the status if the scaffold is safe / unsafe to use.
Basic Scaffolding (SB)	Scaffolding work connected with the operation or use of: <ul style="list-style-type: none"> • modular or pre-fabricated scaffolds; • cantilevered materials hoists with a maximum working load of 500kg; • ropes and gin wheels; • safety nets and static lines; and • bracket scaffolds (tank and formwork).
Intermediate Scaffolding (SI)	All basic scaffolding work and scaffolding work connected with the use and operation of: <ul style="list-style-type: none"> • cantilevered crane-loading platforms; • cantilevered and spurred scaffolds; • barrow ramps and sloping platforms; • perimeter safety screens and shutters; • mast climbers; and • tube and coupler scaffolds (including tube and coupler covered ways and gantries).



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<p>Advanced Scaffolding (SA)</p>	<p>All intermediate scaffolding work and all other scaffolding work connected with the use and operation of:</p> <ul style="list-style-type: none"> • hung scaffolds, including scaffolds hanging from tubes, wire ropes or chains; and • suspended scaffolds
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4.1 Diagram – Example of Scaffolding Terms and Components





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5. ROLES AND RESPONSIBILITIES

Role	Responsibility
Area Manager/ Workplace Controller	Has the following obligations under this standard: <ul style="list-style-type: none"> • Implementation of its requirements, • Ensures the Risk Assessment process is undertaken, • Provides adequate planning, training, safe equipment, competent supervision, leadership and control for the activity. • Ensure that scaffold inspections occur at least every 14 days and after inclement weather periods, and that are tagged in accordance (safe/unsafe to use).
Superintendents and Supervisors	Has the following obligation under this standard: <ul style="list-style-type: none"> • Facilitates and verifies that a documented Safe System of Work (SSOW) is established, that identifies associated hazards and controls to minimise risk to health, safety and environment. • Ensure scaffolding is erected in accordance with this procedure and AS 1576. • Ensure the scaffold inspections are conducted only by competent persons and that they occur at least every 14 days and after inclement weather periods, and that they are tagged in accordance (safe / unsafe to use). • Ensures that the Scaffold Register is current. • Ensures there are safe access / egress, approved serviceable plant and equipment. • Verifies that employees are competent to perform their duties by evidence of training and / or assessment. • Regularly monitors, assesses and conducts an inspection of the workplace for compliance.
Employees	Has the following obligation under this standard: <ul style="list-style-type: none"> • Engages with the supervisor in the process of establishing a documented Safe System of Work (SSOW) that minimises risk to health, safety and environment. • Acts responsibly and perform their work in accordance with this standard and the established SSOW. • Takes reasonable care to protect the health and safety of themselves and others, and to protect the environment. • Reports all injuries, incidents and hazards to the supervisor. • Only carries out tasks that they have been verified and authorised to do so through training and or assessment. • Complies with any design drawing or specification for that particular scaffold. • Does not work from a scaffold where there is no “safe” “scafftag” in place. • Ensures that the safe working loads for the scaffold are not exceeded.



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6. REFERENCES

- Mines Safety Inspection Regulations 1995
- Occupational Safety Health Regulations 1996
- Australian/New Zealand Standard 1576.1:2010 - Scaffolding
- Australian/New Zealand Standard 4576:1995 – Guidelines for Scaffolding
- Australian/New Zealand Standard 1891.1:2007 – Industrial Full Arrest Systems and Devices
- SPA PoE Isolation and Tagging Procedure (D16/695)